

In the Claims:

1. (Original) A method of measuring optical signal power in an optical signal, comprising:
receiving optical signals at a wavelength select switch;
coupling a received optical signal through the wavelength select switch to a power meter;
and
measuring a power level of the optical signal passed through the wavelength select switch
using the power meter.

2. (Original) The method of claim 1, further comprising:
passing a subset of the optical signals through the wavelength select switch at
substantially the same time; and
measuring power in the subset of optical signals using the power meter.

3. (Original) The method of claim 1 wherein the optical signals comprise different
wavelengths of optical energy.

4. (Original) The method of claim 1, further comprising:
diverting a portion of optical energy on an optical medium to obtain the optical signals.

5. (Original) The method of claim 4 wherein diverting comprises:
using a power splitter to divert a portion of the signal power from an incident signal.

6. (Original) The method of claim 1 wherein the optical system comprises a dense
wavelength division multiplexing (DWDM) system.

7. (Original) The method of claim 1, further comprising:
successively directing other ones of the optical signals through the wavelength select
switch to the power meter; and
measuring power in the other optical signals using the power meter.

8. (Canceled)

9. (Original) The method of claim 1, further comprising:
displaying an indication of the power in the optical signal.

10. (Original) The method of claim 1, further comprising:
determining if the power in the optical signal has crossed a predetermined threshold; and
triggering an alarm if the power in the optical signal has crossed the predetermined threshold.

11. (Original) The method of claim 1, wherein the optical system includes a transmission medium from which the optical signals are received, and the method further comprises:
controlling an optical amplifier in accordance with the power of the optical signal to regulate optical power of the optical signals on the transmission medium.

12. (Original) Apparatus for measuring optical signal power in an optical system,
comprising:
a wavelength select switch having output ports to selectively pass a received optical signal to one of the output ports; and
a power meter which receives the optical signal from the output port and measures the power in the optical signal.

13. (Currently Amended) The apparatus of claim 12 wherein the wavelength select switch passes a subset of the optical signals to the output port at the same time and the power meter measures power in the subset of the optical signals.

14. (Original) The apparatus of claim 12 wherein the optical signals comprise different wavelengths of light.

15. (Original) The apparatus of claim 12, further comprising:

an optical tap that diverts a portion of optical signals incident on an optical medium to obtain the optical signals.

16. (Currently Amended) The apparatus of claim 15 wherein the optical tap diverts a portion of power from the optical signals traffic.

17. (Original) The apparatus of claim 12 wherein the optical system comprises a dense wavelength division multiplexing (DWDM) system.

18. (Original) The apparatus of claim 12 wherein the wavelength select switch cycles others of the optical signals to the output port and the power meter measures power in the other optical signals.

19. (Canceled)

20. (Currently Amended) An optical system comprising:

an optical medium which carries different wavelengths wavelength of optical energy;
an optical tap which siphons the different wavelengths of optical energy from the optical medium;

a wavelength select switch having output ports, which receives the siphoned wavelengths of optical energy from the optical tap and which selectively passes at least one of the siphoned wavelengths of optical energy to one of the output ports; and

a power meter which receives the at least one wavelength from the output port and which measures power in the at least one wavelength.

21. (Currently Amended) The optical system of claim 20 wherein the optical tap siphons only a portion of the wavelengths of optical energy from the optical medium.

22. (Currently Amended) The optical system of claim 20 wherein the wavelength select switch passes, to another of the output optical ports, a wavelength that is not included in the at least one wavelength.

23. (Currently Amended) The optical system of claim 20, further comprising:
an optical amplifier which regulates power of the wavelengths of optical energy light on
the optical medium in response to measured power in the at least one wavelength.